

property selected from the group consisting of having a thickness from about 20 to about 150 nanometers, having a ferroelectric operating voltage below 2 Volts, having at least one Type 1 properties and having at least one Type 2 properties. [according to any one of claims 1 to 29.]

57. A method of fabricating a ferroelectric PZT film on a substrate, comprising forming the film by liquid delivery MOCVD on the substrate under MOCVD conditions including temperature, pressure and liquid precursor solution A/B ratio determined by plateau effect determination from a correlative empirical matrix of plots of each of ferroelectric polarization, leakage current density and atomic percent lead in PZT films, as a function of each of temperature, pressure and liquid precursor solution A/B ratio, wherein A/B ratio is the ratio of Pb to (Zr + Ti), and wherein said ferroelectric PZT film comprises a ferroelectric PZT material having at least one scalable character selected from the group consisting of dimensionally scalable character, pulse length scalable character and E-field scalable character, and wherein said PZT material has at least one of property selected from the group consisting of having a thickness from about 20 to about 150 nanometers, having a ferroelectric operating voltage below 2 Volts, having at least one Type 1 properties and having at least one Type 2 properties. [according to any one of claims 1 to 29.]
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60. A method of fabricating a FeRAM device, comprising forming a capacitor on a substrate including a ferroelectric PZT material having at least one scalable character selected from the group consisting of dimensionally scalable character, pulse length scalable character and E-field scalable character, and wherein said PZT material has at least one of property selected from the group consisting of having a thickness from about 20 to about 150 nanometers, having a ferroelectric operating voltage below 2 Volts, having at least one
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